C13 TE7

459 kW (1500 rpm) - 474 kW (1800 rpm)

1/ GENERAL		1500 rpm	1800 rpm
Engine model		CURSOR13 TE7	
Basic engine type		F3HFA615A*D001 - 5801906969	
Number of cylinders		6	
Firing order (cylinder 1 nearest to fan)		1-4-2-6-3-5	
Cylinder arrangement		in line	
Valves per cylinder		4	
Cycle		diesel 4 stroke	
Injection system		Direct - Electronic Common Rail	
Electronic engine control unit		BOSCH EDC17 CV41	
Induction System		Turbo aftercooler air/ air	
Bore	mm	135	
Stroke	mm	150	
Total displacement	lit	12,88	
Mean piston speed	m/s	7,5	9
Compression ratio		16,5:1	
Flywheel rotation		anti clockwise viewed on flywheel	
Housing flywheel		SAE 1	
Flywheel		14"	
Moment of inertia			
without flywheel	kgm^2	1,05	
flywheel only	kgm^2	1,44	
BMEP gross			
Prime Power	bar/kPa	26,8 / 2682,7	23,8 / 2380,4
Stand-by Power	bar/kPa	29,8 / 2980,7	26,4 / 2639,2
Dry weight (including cooling packag	kg	~ 1360	
Energy to coolant	kcal/kWh	374	390
Energy to charge cooler	kcal/kWh	145	162
Energy to radiation	kcal/kWh	35	36
Dimensions L x W x H	mm	2284 x 1329 x 1126	

2/ PERFORMANCES			1500 rpm	1800 rpm
Continuous Power	(gross)	kWm	349	371
Prime Power	(gross)	kWm	446	464
Stand-By Power	(gross)	kWm	480	510
Fan consumption		kWm	21	36
Continuous Power	(net)	kWm	328	335
Prime Power	(net)	kWm	425	428
Stand-By Power	(net)	kWm	459	474
Performance condition				
temperature		°C	≤ 40	
altitude a.s.l		m	≤ 1000	
Derating				
temperature > T 40°C		%/5°C	4%	
altitude >1000 <3000 m		%/500m	3%	
altitude > 3000 m		%/500m	6%	
Load Acceptance (ISO 8528-5)*		%(G2)	45%	60%

* impact load test performed with alternator Meccalte mod. ECO 40 - 1L/4

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3/ COOLING SYSTEM			1500 rpm	1800 rpm
Type			liquid	
Recommanded coolant			water + 50 % paraflu 11	
Coolant capacity				
	engine only	liter	19,5	
	radiator and hoses	liter	18,6	
Coolant pump flow		l/min	460,525	552,63
Pressure cap setting		kPa (bar)	70 (0,7)	
Shutdown switch setting		°C	103	
Maximum additional restriction		Pa	196	
Air To Boil	Prime Power	°C	51	53
Fan				
	diameter	mm	800	
	number of blades		12	
	drive ratio		1,37 : 1	
	speed	giri	2055	2466
	air flow	m^3/s	6,8	8,5
	power consumption	kWm	21	36

4/ LUBRICATION SYSTEM		1500 rpm	1800 rpm
Oil sump capacity			
max	liter	28	
min	liter	20	
Oil system capacity including filter	liter	32	
Oil pressure at rated speed	kPa	250-500	
Oil temperature			
normal	°C	---	
max	°C	120	
Engine Angularity			
longitudinal	degrees	17°	
transverse	degrees	17°	
Servicing interval	hours	600	
Oil specification		ACEA E3/E5	
Oil consumption	%fuel	< 0,2	

5/ INTAKE SYSTEM		1500 rpm	1800 rpm
Air consumption at 100 % of load	m^3/h (Kg/h)	1576 (1812)	1860 (2142)
Air intake restriction, clean filter	kPa (mbar)	2 (20)	
Air intake restriction, dirty filter	kPa (mbar)	5 (50)	
Air filter type		dry	

6/ EXHAUST SYSTEM		1500 rpm	1800 rpm
Gas flow at stand-by Power	kg/h	2027	2359
Max temperature at PRP (25°C)	°C	520	510
Max allowable back pressure	kPa (mbar)	5 (50)	
Energy to exhaust	kcal/kWh	581	604

C13 TE7

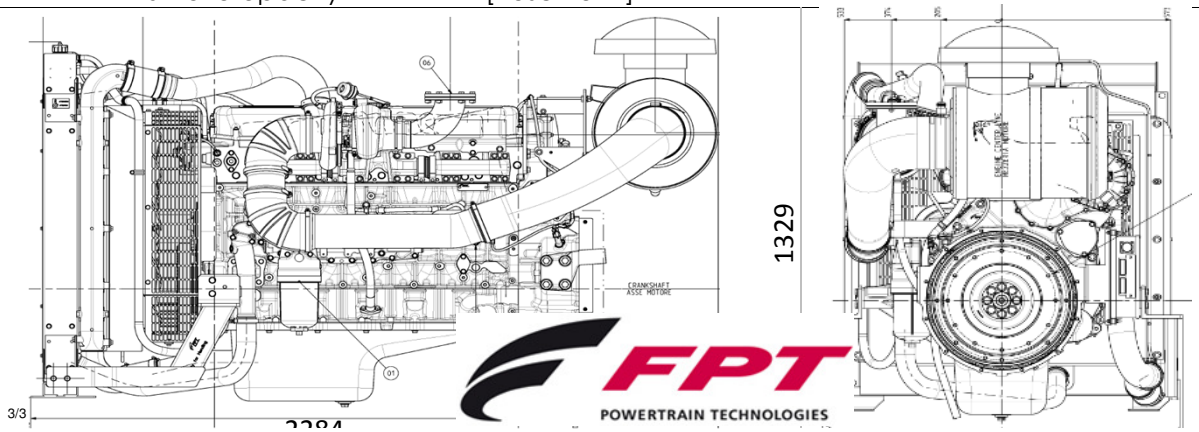
459 kW (1500 rpm) - 474 kW (1800 rpm)

7/ FUEL SYSTEM		1500 rpm	1800 rpm
Fuel consumption at			
Stand-By	gr/kWh (l/h) [kg/h]	195,8 (112,6) [94]	202 (123,3) [103]
Full load PRP	gr/kWh (l/h) [kg/h]	192,7 (100,6) [84]	199,6 (110,9) [92,6]
80%	gr/kWh (l/h) [kg/h]	191,7 (80,2) [67]	196,9 (87,7) [73,2]
50%	gr/kWh (l/h) [kg/h]	197,7 (51,5) [43]	204,3 (57) [47,6]
Fuel specifications		EN 590	
Feed pump max suction head	m	---	

8/ ELECTRIC SYSTEM		1500 rpm	1800 rpm
Voltage (negative to ground)	V	24	
Starter motor			
make		DENSO	
power	kW	7,8	
pull current	Amp	12	
hold current	Amp	12	
break away current +20°C	Amp	1260	
cranking current +20°C	Amp		
Number of teeth on starter motor		10	
Number of teeth on flywheel		155	
Starting batteries			
recommended capacity	Ah 2x	180	
discharge current	Amp	1200	
(EN 50342)			
Alternator			
voltage	V	28	
charge	Amp	90	

9/ COLD STARTING		1500 rpm	1800 rpm
Without air preheating	°C	-10	
With air preheating	°C	-25	

10/ EMISSION GASEOUS AND PARTICLES			1500 rpm	1800 rpm
No_x	Oxides of nitrogen	gr/kWh	-	-
HC	Hydrocarbons	gr/kWh	-	-
No_x+HC		gr/kWh	-	-
CO	Carbon monoxide	gr/kWh	-	-
PT	Particles	gr/kWh	-	-
	Smoke opacity	[Bosch unit]		



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Data di aggiornamento Maggio 2013
Specifiche soggette a modifica senza preavviso.
Le illustrazioni possono includere equipaggiamenti opzionali.